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ABSTRACT

Instruction is the focus of the final pamphlet in a six-part series describing the Management Organization Systems Technique (MOST). The system was designed at Wayne County Community College to determine the goals and objectives of the college and assist management in their attainment and evaluation. The instruction component of the system takes into account the advent of higher-density, locally-covered delivery systems used by the community college to better reach the constituency, and the need for ever more enlightened information and measurement of results. MOST assumes that comprehensive planning for instruction, on-going regenerative development of instructional methods, educational accountability, and teaching by objectives will increase the relevancy of education and minimize conflict between the professionals and non-professionals. MOST provides a mechanism which requires that each academic division, department, program and course have stated and quantifiable objectives for instruction, which can be used to create procedures to measure actual benefits against those which are expected. Effective communications, a feedback mechanism, departmental control over course content, a monitoring committee and an overall administrative plan related to the academic process are utilized to ensure quality instruction. (AYC)

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MANAGEMENT
ORGANIZATION
SYSTEMS
TECHNIQUE

A MANAGEMENT SYSTEM FOR HIGHER EDUCATION INSTRUCTION

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WAYNE COUNTY COMMUNITY COLLEGE

MANAGEMENT ORGANIZATION SYSTEMS TECHNIQUE

DEVELOPMENTAL TEAM

Reginald Wilson, Ph D., President

Mostafa M. Afr, Ph D., Executive Vice President

Milan M. Chonich, MBA.
Director, Budget & Management Development

Carmen J. Pascaretti, MBA.
Interim Assistant Dean for Student Services

Steven M. Racine, MBA.
Management Systems Coordinator

Gregory D. Maronick, MA.
Interim Management Development Coordinator

Dr. Frederick W. Bertolaet, Associate Dean
School of Education
University of Michigan
Consultant

INTRODUCTION TO

MANAGEMENT ORGANIZATION SYSTEMS TECHNIQUE

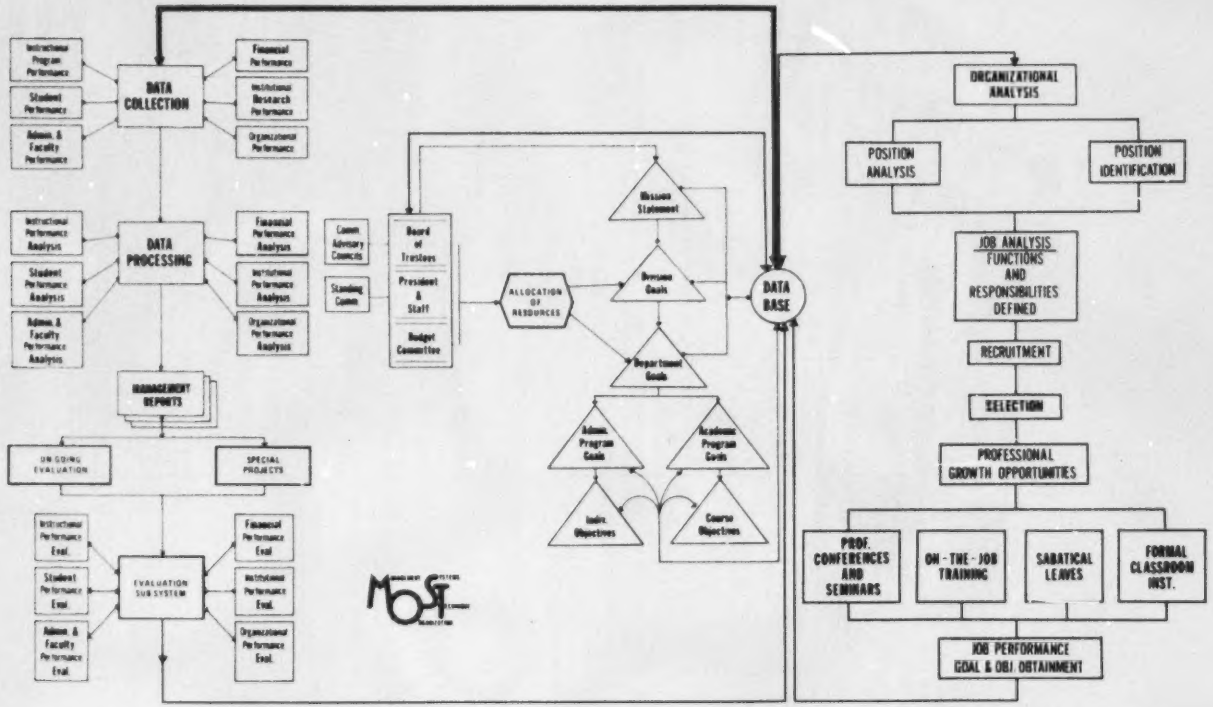
One of the finest achievements during my tenure as chief executive officer of Wayne County Community College has been the recent development within its professional ranks of a comprehensive management program entitled, "Management Organization Systems Technique" (M.O.S.T.).

A prototypical concept in 1971, M.O.S.T. has evolved into a profound far-reaching system which is expected to provide the College's leadership with an excellent opportunity for coordinating the dynamic growth and development of the College, thereby being able to respond quickly and efficiently to the College's needs.

Under the direction of the Board of Trustees, the Vice Presidents and I have strongly supported and encouraged the efforts of the developmental team headed by Dr. Mostafa M. Afr, Executive Vice President. That team has brought to fruition a comprehensive program yielding educational and service benefits to students, faculty, staff members and the community we have been entrusted to serve.

The development of M.O.S.T. has been worthwhile. Through the effective implementation of this management system in the months and years to come, we will be able to meet our responsibilities well, in addition to helping create for the community at large a community college truly responsive to its community's needs.

Dr. Reginald Wilson
President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INSTRUCTION

INTRODUCTION

As a college or university becomes sufficiently well systemized, it creates for itself ways and means for adequately encapsulating methods for delivering educational services; it also finds precise applicabilities for instituting valid measurements of those services provided.

Administrators who espouse total management systems are learning the answers to a set of diverse educational questions, as traditional scholars, factory workers, homemakers, clerks – among them increasing numbers of women and minorities of all ages – have legitimately found their way into college classrooms in order to exercise fundamental prerogatives, many of which are critical in human development.

As members of an informed society, Americans have learned that the parameters of education are unlimited; through educational experience, people perceive fuller individual and collective significances of the involvement as well as observe at first hand humanizing and practical distinctions.

A system should be constructed to constantly validate itself by progressively diminishing input/output processes involving conceptual errors and irrelevancies. A well programmed system tends to revitalize itself if properly monitored. This fine-tuning process may be achieved through an on-going demonstration that interrelated, college-wide procedures are fully and realistically functional, while other devices are employed to restrict or de-program that which is less useful.

According to Wayne County Community College's Executive Vice President, Mostafa Afr, "A management organization systems technique attempts to create and integrate the processes and procedures required of a sophisticated management system for educational administration."[1] Within M.O.S.T. (Management Organization Systems Technique) information processed tends to redefine and sharpen itself, which in its turn serves to regenerate and make more useful educational experience.

With the advent of higher-density, locally-covered delivery systems used by the community

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[1]Mostafa Afr, Dissertation: *An Exemplary System: Management Organization Systems Technique* (Ann Arbor, Michigan, 1976), page 235.

college to better reach the constituency, educational opportunity has been brought home. There are many neighborhood colleges in America, helping to clarify socioeconomic profiles hitherto inadequately developed, wholly misconceived or inaccurately described. In a college's reaching out, legitimate educational support is created – just as that which is invalid is exposed in a process restructuring much of the American ethos. This may be exemplified within virtually every facet of adult life; criteria for success have been radically altered in recent years. The experience of factory and office workers is assumed to have inherent value, as many ordinary people have demonstrated a capacity to grow in formal learning centers in order to validate their experiences as well as actualize individual educational pursuits whether intellectual, artistic, vocational or professional. The community college has responded to this demand at the local level.

Evaluation of higher education as a concept must be examined in terms of ever more enlightened information and measurement of results. What is the quality of the educational experience for one individual or another? Ideally, this should be an individualized process, yet probabilities vary widely. In curriculum planning, the institution must achieve weighted balances between amateur and professional aspects of experience in order to maximize positive affect in terms of meeting short- and long-range goals and objectives for each student.

It would seem many college instructors regard questions concerning classroom experience in terms of educational relevancy and accountability as prima facie evidence of an influence which undermines a teacher's integrity. But this is the narrow view. Most faculties are rich in human resource, energy and knowledge. In describing a system of management for the Harvard Business School, Davis and Lawrence have observed:

> . . . All faculty are assigned *both* to subject area groupings (academic departments) and to program groupings (masters program, doctoral program, executive program, research program, etc.). These groupings are headed up by members of the faculty who serve for a limited number of years as area chairpersons and program chairpersons. Faculty members have responsibilities to both of these leadership roles. This matrix structure is supported by an array of additional mechanisms such as a simple dual resource accounting system, a dual faculty evaluation system, and a dual set of forums for developing academic policies.[2]

[2]Stanley M. Davis and Paul R. Lawrence, *Matrix* (Reading, Mass.: Addison-Wesley, 1977), p. 173.

Although the authors remark upon the system's positive aspects, they also note that there exists some resistance to change among faculty:

> In our judgment this system works relatively well, but not all of our faculty colleagues would agree with this judgment. One reason for the very mixed opinion is that the system is a very demanding one for the faculty. They really feel the pressure to perform in terms of the quality of educational programs as well as in terms of professional excellence. Probably the most sticky issue in the operation of the matrix is the process of assigning faculty to the various competing programs. This is a complex and delicate process under any system, since the professional needs and personal aspirations of the individual must be weighed along with the various institutional requirements.[3]

A system design may not only influence student achievement directly or indirectly, enhancing real advancement in the market place, but also discard other factors which are revealed as inadequate in regard to a total educational program. In validating each of the variables in the management process itself, including of course delivery of instruction, M.O.S.T. attempts to distill and synthesize a vast amount of information for the student, which the individual could not have done for himself/herself. This is a key service, and therein lies an intrinsic value.

[3]Ibid.

Thompson has pointed out:

> System design not only must respond to the achievement level and learning ability of the entering student, but also must respond to, and be compatible with, the hierarchy of priorities of the several domains of the goal, the performance levels of the behavioral units of the dorpain, the operational and design constraints, cost-effectiveness analyses and recommendations, quality control and operation-monitoring feedback, psychological research data, the social environment, the history and philosophies of education, provision for uncertainty, human judgment, and other variables.
>
> But the fundamental basis for decisions about the design of the system of instruction is none of the things mentioned above. *The fundamental basis for design decisions is the goal of the system, after the goal has been translated into behavioral objectives.*
>
> The design of the system determines the output of the system within limits set by the learning potential of the student. The stated goal (An Educated Person) is the primary basis for design and operation decisions.[4]

It is assumed by M.O.S.T. that this is a time for ongoing, regenerative *methods* development, for in the final analysis the computer, for example, as well as the entire array of technological hardware, software, and assorted electronical and mechanical devices will prove beneficial to humankind's well being; an increasing measure of rudimental and

[4]Robert B. Thompson, *A Systems Approach to Instruction* (Hamden, Conn.: Linnet Books, 1971), p. 11.

repetitive work taken care of automatically frees humankind for more productive enterprises, and so human beings may concentrate upon knowing themselves better as well as create more positive environments, affecting change throughout the world.

ACCOUNTABILITY

The instructor may be viewed as the intermediary between a service organization (the college) and the client (student). The conscientious teacher through training, experience and personal commitment to truth is apt to be suspicious of abstract or systemic influences, which oftentimes may represent a type of propaganda or repression. In reality, the M.O.S.T. system is designed to support the instructor in what he or she is trying to achieve in legitimate educational pursuits.

Is accountability a mindless process? It can be if not properly implemented; like electricity, it may be dangerous in inexperienced hands. When in the past a system smacked of authority the teacher has tended to resist it, and some may resist any planning/ evaluative scheme altogether. Yet clearly the responsibilities of instructors have shifted in recent years in order to accommodate changing times. Although a particular teacher may not wish to involve himself/herself in related and ancillary endeavors but merely to go on imparting information, concepts and techniques, that person is a professional and in all of the professions supportive requirements must be periodically revised even when basic services are constant.

TEACHING BY OBJECTIVES

M.O.S.T. requires that instructor and student agree at the beginning of the semester upon those goals which are to be attained by the end of the course. Assumptions which have proved unproductive in the past thereby may be subsequently de-emphasized or eliminated.

Most instructors acknowledge they participate in the formulation of a changing environment, and many of them have addressed themselves to treating institutional realities within the limits of a given discipline. Some students appear to have intuited a future reality since change abounds in everyday life. Life itself begets change – perhaps life *is* change. When an individual instructor recognizes organizational/sociological patterns which emerge within virtually all institutions in the

society, he/she may professionally accommodate change and therefore his/her contribution to the "social" experience of students may be deemed sufficiently cogent for a majority.

In order to be truly committed to educational enrichment a system must have built-in flexibility so as to accommodate a wide spectrum of human activity. As long as the constituency demands a range of service, not all offerings may be properly described as academic or professional; a community college assumes special responsibilities vis-a-vis job-related courses. Students are not likely to require basics only, on the other hand, for they will want to know how to actualize themselves in addition to learning subject matter.

What are evaluative criteria? A system should impede optimal development of neither imaginative nor rational thought processes. While the college may be totally committed to filling the needs of larger socioeconomic goals in servicing the community first, yet there must be provisions made for special interest in performing arts, for example, music or other subjects, as exponents of valuable traditional archetypes in the consciousness of collective humankind. Yet, since invention itself is chiefly individualistic, it follows that institutions may be secondarily concerned in such achievement.

Adequate implementation of a system requires constant monitoring and ongoing modification. For example, with the moonshot and the works of Einstein "behind us" in the modern era – many essential manifestations of these events have somehow entered mass consciousness – new influences constantly vie with popular culture and an array of competing mythic interpretations. Technology cannot outstrip or outlive the effects of the living human mind no matter what science fiction tells us. Each current system is necessarily in flux, and properly channeling energy and information for adequate programming is pivotal in regard to maintaining the regenerative process.

With and without computer assistance the M.O.S.T. approach provides definition for employees, instructors and students. Administrators must weigh these outcomes and determine the best courses of action for the organization to follow – not only for the benefit of the college itself, but for the ultimate benefit of the client/student served by the college.

Services provided by systems have proven valid heretofore through a process of interaccommoda-

tion. This is reflected in accuracy of prediction, and the constituency thereby becomes beneficiary.

In a time when auto workers legitimately earn baccalaureate and advanced degrees, traditionally-oriented academic standards have been adequately modified in order to achieve productivity through relevancy. Technology in education has been successful in quantitative and qualitative terms, and the accepted maxim is that standards have neither been raised nor lowered but certainly changed in order to meet current criteria as well as maintain ongoing credibilities and validities. Organizationally speaking it does not obtain to prepare for events that are unlikely to occur, and the relevancy for education may be immediately grasped.

INSTRUCTIONAL OVERVIEW: The Amateur v. The Professional

Our purpose here is not so much to evaluate the success of a particular system within an institution – and such success has often been significant – as it is to demonstrate how the system works vis-a-vis instruction and point out possible applications for another institution to learn from this experience in building a system from within itself.

One prerequisite in creating a viable institution is to recognize its limitations, just as an individual must know his/her strengths and weaknesses in order to prosper physically, mentally, emotionally and spiritually. The purpose of design constraints is "to insure efficiency in the attainment of the system's goals."[5]

Internal conflict among staff members, among faculty or staff, and between staff and faculty factions is apparent in many institutions of higher education. It is a struggle which has many names, not the least of which involves differing views regarding life styles, philosophies and values. A systems approach to management mandates professionalism, a commonality of objectives through effective role-development. Even though some instructors (and many more students) may imagine they are independent of systems and systems control, they may daily become more inextricably bound to systemic realities in almost every facet of their lives. Yet inherent pitfalls of professionalism may be observed on this plane; and indeed such recognition must be made if the organization is to experience growth.

[5] Ibid., p. 64.

The amateur is not necessarily subjected to organizationally derived demands. The amateur-oriented student may require or demand the amateur-oriented teacher, and if specific disciplines will allow this may be a wholly acceptable situation – and yet the standards for these courses must also be set and maintained within reasonable dimensions. For these individuals the well structured instructional sub-system may provide a place for practice. What is meant by amateur is non-aligned, incidental to system, regardless of discipline. But to be independent of system is unlikely; still a "community service" may be effected. To illustrate, if sufficient numbers of students demand XYZ the institution must seriously consider offering XYZ. According to Webster an amateur is: "A person who engages in some art, science, sport, etc., for the pleasure of it rather than for money . . ." This kind of involvement clearly has a place within the college environment, although the central impetus for it may be generated from elsewhere, i.e., within the realm of individualistic rather than collective concerns.

One question which often comes up in this regard is: "How can instruction be a part of the system when nobody knows what's going on in the classroom except the instructor and students?" This observation is well taken, yet the ground must also be broken for future generations when many vagaries disappear and accountability becomes more generally operational, when even greater systemic compliance and mastery are likely to be extant, apparent and necessary. Meanwhile, it has been amply demonstrated that systems approaches need not be abstract or irrelevant.

INSTRUCTION

THROUGH M.O.S.T.

Instructional and overall academic orientation clearly differentiates M.O.S.T. from other management systems. Perhaps few other theorists have faced the difficulties of comprehensive planning for instruction in a way that is useful to management, instructors, and students. M.O.S.T. attempts to integrate the theories of planning, evaluation and staff development into the special needs of academic modes. The instructional sub-system fits within the structure of the entire system, but it is regarded as quasi-distinct because of its special nature in comparison to the four other sub-

systems, yet emphasis remains upon objective setting and decision making procedures. It is a tenet of M.O. S.T. that productive analyses may be achieved in this area due primarily to the instructor's sensitivity to the traditional rights of academic domain. M.O.S.T. does not violate those assumptions; it does, however, provide that course objectives be stated rather than assumed. Feedback is thereby generated from instructors and students alike for proper implementation.

This has led to clarity in academic planning and evaluation. Although resistance was evident regarding attempts to formalize accountability within education, the purpose of the M.O.S.T. academic sub-system is to assist the student in learning as well as the instructor in teaching. It is not a system designed to judge competence but rather to bring aspects of progressive planning to the classroom.

The instructional sub-system cannot be totally divorced from the M.O.S.T. system; however, reference must be made to systemic documentation vis-a-vis evaluation and interdependence for a clear understanding of the processes involved. M.O.S.T. has been designed as a complete management system, and therefore the instructional function is viewed as a sub-system for the sake of cogency and regeneration.

Inputs and outputs of formal education have been difficult to define since "education" is never finished and in many instances once the graduate is in the job market his formal education may become subordinated in practical terms. Although instructors provide motivation in imparting knowledge and since benefits arise from human and material resources consumed, educators traditionally have been hesitant to state these benefits formally.

M.O.S.T. provides a mechanism which requires stated, quantifiable objectives for instruction in creating procedures to measure actual benefits against those expected.

DEVELOPING AN ACADEMIC PLAN

As described in the Planning sub-system of M.O.S.T., the first stage in developing a strategy is to accumulate the necessary information from which planning may begin, encompassing all applicable parameters. The M.O.S.T. data bases are expected to provide for:

1. An examination of the environment;
   a. Environmental conditions,
   b. Determination of needs,
   c. Identification of resources,
   d. Forecasting model.

2. Development of strategic alternatives;
   a. Diverse inputs,
   b. Based on data and projections.

3. Itemization of constraints;
   a. Environmental,
   b. Resources,
   c. Forecasts.

The inputs to the planning process will correspond to meeting one of the above requirements or will be like a special report as provided by the data sub-system outside the realm of normal system procedures. On the other hand, the outputs of the academic planning process will become inputs to the data system to be used for subsequent evaluation and feedback.

When the strategic alternatives have been tested and a determination of benefit/cost relationships has been made, the M.O.S.T. planning process yields:

4. Selection of strategy;
   a. Formalized broad goals,
   b. Organizational integration,
   c. "Cascading of Objectives."

5. Budgeting;
   a. Programmatic,
   b. Output (objectives oriented).

6. Evaluation;
   a. Integrated data collection,
   b. Data processing,
   c. On-going evaluation.

M.O.S.T. assumes that the strategy of the college will be reflected in a dimensional strategy. In this case, the portion of the mission statement relating to instruction should be used by academic planners as a foundation upon which to build their strategy.

Each department within the academic division is required to accomplish some portion of the goals of the division as a whole. Their existence presumes that the department provides an output deemed necessary to the college. It is the task of departmental heads working with their superiors and subordinates, to formalize the objectives of the department. These objectives should relate directly to the goals of the academic division, each objec-

tive clearly specified and the sum total of the goals matched by departmental objectives, i.e., objectives should be stated in quantifiable terms that provide for a measurement process and subsequent evaluation.

PREPARING PROGRAM AND COURSE OBJECTIVES

The main problem that exists in most post-secondary institutions is that there is no accurate identification of what each student is expected to learn from a particular course or an entire program. The program and course objectives are perhaps the most time consuming aspect of academic planning. They are the specific documentation of the expected output of the department. Setting program objectives aids not only planning and evaluation, it also aids the individual instructors and students. Instructors, like administrators required to set objectives, realize what their superiors expect of them and what the students should expect from the course. Students also can better plan their studies if they are aware of the skills they must acquire to pass each course.

Setting program and course objectives demands the time and effort of instructiors as well as administrators. No planning is truly rational without the input of those who will be required to achieve the objectives. Thus, M.O.S.T. sets up committee procedures to allow faculty and administration to finalize collectively program and course objectives before implementation.

FEEDBACK LOOP

A true objective cannot be vague or unmeasurable. In order for planning to succeed, there must be a mechanism through which the results of planning are measured and this information passed along to those responsible for planning. In M.O.S.T., this mechanism is the data and evaluation system.

The data collection procedure in M.O.S.T. is based upon the measurability of objectives. In the instructional arena, student performance is defined in a way that lends itself to some form of testing or evaluation. Both the stated goals of student performance and actual performance as it occurs are fed into the data system. Raw data are processed, either manually or with the assistance of electronic data processing, into a form that can be used for evaluation.

The major function of the data system in M.O.S.T. is to summarize, filter, format, and other-

wise treat raw data so that they become usable information. This process allows for a determination of effectiveness in the academic area through the evaluation of programs and courses.

EDUCATIONAL PROCESS

It is important that the educational process be reviewed, the intent of which is basically to identify and measure that which each course or program must impart to each student, especially in view of technological change and other objective criteria. In the M.O.S.T. structure accurate assessment of educational outcomes is essential for planning and effective stimulation of growth. Assessment responsibility is especially critical in times of change so that adequate reappraisal of educational endeavors may be made as needed. Whatever assessment procedures are applied they are all vital to curriculum development.

Effective evaluative systems must satisfy several basic criteria: 1) Accurately reflect program and course objectives as they currently exist, 2) Provide objective evaluation and self-evaluation, 3) Facilitate teaching through specificity of course subject matter, and 4) Provide continual feedback for processes of curriculum development and educational policy.

Through the auspices of department chairpersons the following may be implemented:

1. Communications process for all faculty of each program, whose basic function is to create, update and/or modify course and program objectives and performance indicators.
2. Feedback mechanism, which will provide information concerning book selection, course sequence, time and site relationships, class offerings of other colleges, and other information affecting the educational process.
3. Planning device, which will allow identical courses to cover similar material, ensuring that each course adequately prepares every student for other courses in the sequence, as well as relate to overall program objectives.
4. Monitoring committee, which will review course objectives, past exams and other relevant data, in order to establish standardized tests, which will be used throughout the program. This committee will also be charged with reviewing student test results and reporting their findings.

5. Overall administrative plan, which will provide a means for identification, planning, implementation, measurement, evaluation and feedback relative to overall academic process.

M.O.S.T. provides for an objectified managerial approach, ensuring quality academic programs. Faculty in each curriculum area are called together by the chairperson on a regular basis to provide necessary input regarding the instructional process, continued relevancy of objectives and related matters. The instructor is thereby able to spell out instructional goals in terms of overt behavior. According to Krathwohl: "This gives new detail; indeed it yields an operational definition of many previously general and often fuzzy and ill-defined objectives."[6]

This is further supported by Brown and Thornton:

"Clear and forthright expression of precise and measurable outcomes of instruction is the first and perhaps the most difficult part of the systematic approach to higher education. Professors often object to the vigorous examinations of their own purpose on the grounds that student intellectual growth is intangible and can be measured only after years have passed by. Besides, they argue, any good teacher knows intuitively what he is trying to accomplish; teaching is an art, and will wither if subjected to close examination. Yet it is undeniable that, if objectives are so esoteric and immaterial that their attainment by students cannot be measured, then the instructor can never be sure he has achieved anything . . .

"The systems approach to instructional planning seeks to understand and evaluate the contribution of each of the components of the system to achievement of its stated goals, so that the optimum combination of elements may be chosen for utilization in instruction. In more formal terms, an instructional system may be defined as an assemblage of interrelated elements (faculty, students, buildings, materials, equipment) that operate in an organized manner to prepare and present instructional messages by means of interpretation, distribution, refinement and application of information. The system, to be effective, must include elements sensitive to feedback and capable of evaluation and judgment."[7]

[6]David R. Krathwohl, *"Stating Appropriate Education Objectives,"* from *Curriculum Evaluation,* Apr. 1974.

[7]James W. Brown and James W. Thornton, Jr., *College Teaching: A Systematic Approach* (New York, N. Y.: McGraw-Hill, 1971), pp. 62, 63-64.

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